

HORNE & THORNTHWAITE'S

Descriptive Catalogue

OF

SCIENTIFIC INSTRUMENTS,

122 & 123, NEWGATE ST., LONDON.

PART 2.

PHOTOGRAPHIC APPARATUS AND CHEMICALS.

MESSRS. HORNE & THORNTHWAITE beg respectfully to observe, that all orders from abroad, or from country customers, must be accompanied by a remittance or order for payment in London, otherwise they cannot be forwarded. Attention to this particular will ensure their dispatch in the shortest possible time, and also command a discount of 5 per cent. of the published prices, if the amount exceeds £5. Should the order be forwarded through an agent, it is particularly requested, to prevent disappointment, that implicit instructions be given that it is to be executed by Messrs. H. & T.; and, in orders from abroad, if the name of the country be also supplied, it will enable them to construct or select instruments that shall not be affected by the climate of the locality for which they are intended.

Messrs. HORNE & THORNTHWAITE beg to state, that by far the greater number of the articles enumerated in the following List are manufactured by their own workmen on the premises, and, consequently, under their own immediate superintendence, and will be found of the best construction, and at prices extremely moderate for first-class instruments. They have also much pleasure in informing their friends and the public, that they have had awarded to them the Great Exhibition

PRIZE MEDAL



FOR PHOTOGRAPHIC APPARATUS.

Every explanation and instruction, both as to the theory and manipulation of the various Photographic Processes, will be given gratuitously to purchasers of apparatus and others desiring information, either by letter or personally, at their Establishment, No. 122, Newgate Street, where they have erected a Glass Room expressly for Photographic Experiments.

DECEMBER, 1855.

[FOURTH EDITION.]

*New Edition, just published, price 1s., post-free 1s. 2d.,*

# A GUIDE TO PHOTOGRAPHY:

CONTAINING SIMPLE AND CONCISE

Directions for obtaining Views, Portraits, &c.,

BY THE

ACTION OF LIGHT ON PREPARED SURFACES OF PAPER AND GLASS,

INCLUDING

PLAIN DIRECTIONS FOR THE PRODUCTION

OF

**POSITIVE AND NEGATIVE COLLODION PICTURES,**

AND FOR TAKING LANDSCAPES, &c., &c.,

BY

THE CALOTYPE AND WAXED PAPER PROCESS;

ALSO,

CLEAR INSTRUCTIONS IN THE NEW COLLODIO-ALBUMEN  
PROCESS; AND PRINTING POSITIVES ON PAPER.

WITH

THE METHOD OF TAKING STEREOSCOPIC PICTURES.

BY

**W. H. THORNTHTHWAITE,**

*Author of "Photogenic Manipulation," &c.*

Ninth Edition.

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GREAT EXHIBITION PRIZE MEDAL FOR PHOTOGRAPHIC APPARATUS.



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HORNE AND THORNTHTHWAITE,

122 & 123, NEWGATE ST., LONDON.

# HORNE & THORNTHWAITE'S COMPOUND LENSES FOR PHOTOGRAPHY.

THESE combinations are strongly recommended to the photographic public, as possessing a new feature in portrait lenses; viz., that of a *long chemical range*, by which every part of the sitter is in good focus in the pictures produced by them, whilst their rapidity of action is ensured by a peculiarity of the mode of correction in their manufacture, which guards against any of the yellow rays being left uncorrected (as those rays, if not corrected, would make the lens slow in action). The chemical and optical rays perfectly coincide, and the definition is such as to produce every minute detail with perfect distinctness; indeed, Messrs. HORNE & THORNTHWAITE venture to assert, without fear of contradiction, that the lenses they now manufacture are superior to those of foreign production, and are not to be excelled by those of any maker.

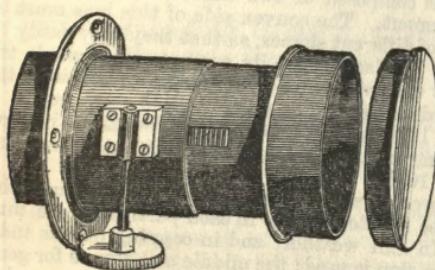


Fig. 1071.

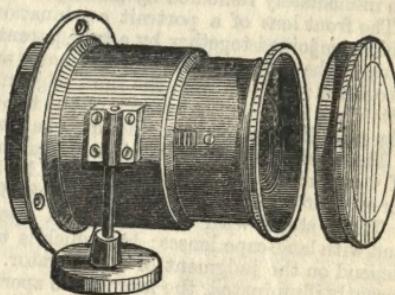


Fig. 1077.

## PORTRAIT LENSES.

*Any purchaser may see his lens tested and a picture produced by it; or, where such is not practicable, a picture taken by the lens will be supplied, if desired, as a guarantee of its qualities, without extra charge.*

1071 **Portrait Combination**, consisting of two compound achromatic lenses, in handsome brass mountings, with rack and pinion adjustment, the lenses  $3\frac{1}{2}$  inches in diameter, for producing portraits, &c., 8 inches by 6 inches, fig. 1071, £15 15s.

1072 Ditto, arranged for taking portraits up to 8 inches by 6 inches, and views 12 inches by 10 inches, with three variable stops, £17 17s.

The front lens of this Portrait Combination may be used for taking views 12 inches by 10 inches; but its great length of focus renders it inapplicable for the production of pictures of a smaller size. Where these are required, one of the landscape lenses, page 92, must be employed.

1073 **Portrait Combination**, consisting of two compound achromatic lenses, in handsome brass mountings, with rack and pinion adjustment, the lenses  $2\frac{3}{8}$  inches in diameter, for producing portraits, &c., 6 inches by 5 inches, £7.

1074 Ditto, arranged for taking portraits up to 6 inches by 5 inches, and views 9 inches by 7 inches, with three variable stops, £8 8s.

1075 **Portrait Combination**, consisting of two compound achromatic lenses, in handsome brass mountings, with rack and pinion adjustment, the lenses  $1\frac{3}{4}$  inches in diameter, for taking portraits, &c., up to 4 inches by 3 inches, £3 13s. 6d.

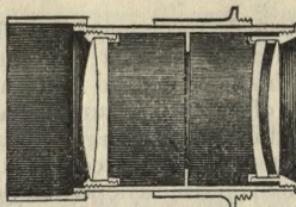


Fig. 1071.\*

Whenever the lenses are removed from their cells, in order to be cleaned, it is very important that they be replaced in the same order as regards their position, &c. Instances are not unfrequent of lenses being returned from a distance, with a list of their defects, which are immediately remedied by placing them in their correct positions.

The front lens of a portrait combination is composed of two different kinds of glass, which are joined together by a transparent cement. The convex side of this lens must be towards the sitter. The two back lenses are of different shapes, so that they may easily be recognized; the one with the thick edge must be placed with its convex side towards the sitter, and must be the nearest of the two to the front lens. The back lens is thin at the edge, and its most convex side must be towards the sitter, as shown by the above cut.

The front lens of the portrait combinations 1071 and 1073 can be used for taking pictures of views, monuments, buildings, &c., by being removed from its portrait mounting, and screwed into a brass mounting similar to fig. 1077.

Three stops, with different sized apertures, are supplied with the view mounting and with landscape lenses; but which is to be selected for use in each particular case, must depend on the judgment of the operator. In dull weather, and in copying objects indifferently illuminated, the largest size aperture stop is used; the middle size stop is for general use in moderate light, and the smallest size when the object to be copied is exposed to full sunshine or great sharpness is required; and it may be taken as a general rule, within certain limits, that the smaller the aperture which admits the light, the greater is the sharpness of the picture produced, but the time of exposure must be increased where such small apertures are employed.

### LANDSCAPE LENSES.

1077 **Landscape Lens**, consisting of one achromatic combination  $1\frac{3}{4}$  inches in diameter and 8 inches focal length, mounted in brass, with rack and pinion adjustment, for producing pictures 6 in. by 5 in., £1 15s.

1078 **Landscape Lens**, consisting of one achromatic combination 2 inches in diameter and 10 inches focal length, mounted in brass, with rack and pinion adjustment, for producing pictures 7 in. by 6 in., £2 12s. 6d.

1079 **Landscape Lens**, consisting of one achromatic combination  $2\frac{3}{8}$  inches in diameter and 14 inches in focus, mounted in brass, with rack and pinion adjustment, for producing pictures 9 in. by 7 in., £3 13s. 6d.

1080 **Landscape Lens**, consisting of one achromatic combination 3 inches in diameter and 16 inches focal length, mounted in brass, with rack and pinion adjustment, producing pictures 12 in. by 10 in., £5 5s.

## PHOTOGRAPHIC CAMERAS.

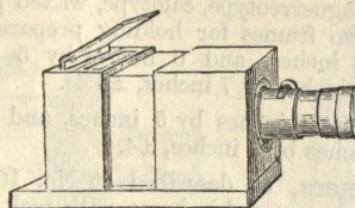


Fig. 1084.

### EXPANDING CAMERAS.

- 1081 **Expanding Camera**, of French polished mahogany, with sliding body, focusing glass in frame, and single back, for taking pictures on glass or paper up to 5 inches by 4 inches, £1.
- 1082 **Expanding Camera**, as described at No. 1081, fitted with single achromatic lens, mounted in brass, with rack and pinion adjustment, for producing views on paper or glass 5 inches by 4 inches, £2 16s.
- 1083 **Expanding Camera**, as described at No. 1081, fitted with double combination of achromatic lenses, mounted in brass, with rack and pinion adjustment, for taking portraits 4 inches by 3 inches, £4 13s. 6d.
- 1084 **Expanding Camera**, of French polished mahogany, with sliding body, fig. 1084, focusing glass in frame, one single back, for taking pictures either by the daguerreotype, calotype, waxed paper, or collodion processes, with two frames for holding prepared plates 4 inches by 3 inches, and 3½ inches by 2¾ inches, and capable of taking views 6 inches by 5 inches, £2 12s. 6d.
- 1085 **Expanding Camera**, as described at No. 1084, fitted with single achromatic lens, mounted in brass, with rack and pinion adjustment, for taking views 6 inches by 5 inches, £4 8s.
- 1086 **Expanding Camera**, as described at No. 1084, fitted with double combination of achromatic lenses, adapted for taking portraits 4 inches by 3 inches, £6 6s.
- 1087 **Expanding Camera**, of French polished mahogany, with sliding body, fig. 1084, with focusing glass in frame, one single back, for taking pictures either by the daguerreotype, calotype, waxed paper, or collodion processes, with two frames for holding prepared plates, 6 inches by 5 inches, and 5 inches by 4 inches, and capable of taking views 7 inches by 6 inches, £3 15s.
- 1088 **Expanding Camera**, as described at No. 1087, fitted with single achromatic lens, mounted in brass, with rack and pinion adjustment, capable of taking views 7 inches by 6 inches, £6 8s. 6d.

1089 **Expanding Camera**, as described at No. 1087, fitted with double combination of achromatic lenses, handsomely mounted in brass, with rack and pinion adjustment, adapted for taking portraits 6 inches by 5 inches, £10 15s.

1090 **Expanding Camera**, of French polished mahogany, with sliding body, fig. 1084, focusing glass in frame, one single back, for taking pictures either by the daguerreotype, calotype, waxed paper, or collodion processes, with two frames for holding prepared plates, for portraits 8 inches by 6 inches, and 6 inches by 5 inches, and capable of taking views 9 inches by 7 inches, £4 4s.

1091 Ditto, for portraits 6 inches by 5 inches, and 5 inches by 4 inches, and views 9 inches by 7 inches, £4.

1092 **Expanding Camera**, as described at No. 1090, fitted with single achromatic lens, mounted in brass, with rack and pinion adjustment, adapted for taking views 9 inches by 7 inches, £7 13s. 6d.

1093 **Expanding Camera**, as described at No. 1090, fitted with a double combination of achromatic lenses, adapted for taking portraits up to 6 inches by 5 inches, and the front lens capable of being used for taking views, 9 inches by 7 inches, by being screwed into a separate mounting, £12 8s.

1094 **Expanding Camera**, as described at No. 1090, fitted with a double combination of achromatic lenses, adapted for taking portraits up to 8 inches by 6 inches, £19 19s.

1096 **Expanding Camera**, of French polished mahogany, with sliding body, fig. 1084, with focusing glass in frame, one single back for taking pictures either by the daguerreotype or collodion processes, and one double back for taking pictures by the calotype or wax paper processes, with two frames for holding prepared plates 8 inches by 6 inches, and 6 inches by 5 inches, and capable of taking views 12 inches by 10 inches, £11.

1097 **Expanding Camera**, as described at No. 1096, fitted with single achromatic lens, mounted in brass, with rack and pinion adjustment, adapted for taking views 12 inches by 10 inches, £16 5s.

1098 **Expanding Camera**, as described at No. 1096, fitted with double combination of achromatic lenses, mounted in brass, with rack and pinion adjustment, adapted for taking portraits up to 8 inches by 6 inches, and views 12 inches by 10 inches, the front lens capable of being used for taking views as described at page 92, £28.

*N.B.—It should be observed that these prices do not include a double camera back. For prices see Nos. 1131, 1132, 1133.*

*If any of these cameras are intended for India or other hot countries, it is necessary they should be constructed of Spanish mahogany, and the sides clamped with brass, so as to ensure their withstanding the effects of climate. This will add an extra expense to No. 1084, of £1 10s.; to No. 1087, an extra expense of £1 11s. 6d.; to No. 1090, an extra expense of £2 10s.; and to No. 1096, £3 10s.*

## HORNE & THORNTHWAITE'S FOLDING CAMERAS.

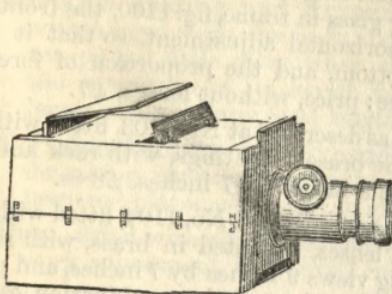


Fig. 1100.

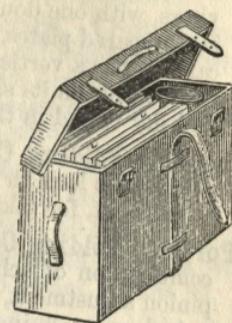


Fig. 1124.

### FOLDING CAMERAS.

**HORNE & THORNTHWAITE'S Portable Folding Camera** can be highly recommended for tourists, travellers, and others requiring a most effective instrument for taking views, portraits, &c., combined with the smallest possible bulk and weight. The sides are hinged so as to fold inwards, so that when closed a camera for taking pictures 7 inches by 6 inches, focusing frame and backs, will pack into a case, fig. 1124, external diameter of which is 15 inches long,  $9\frac{1}{2}$  inches wide, and 4 inches thick, and is so constructed as to be adapted for both paper and glass processes, and is not liable to any injurious effect of climate.

1099 **Portable Folding Camera**, of Spanish mahogany French polished, with one aperture for views only, adapted for taking pictures 7 inches by 6 inches, with one double back, for holding two pieces of prepared paper, and focusing glass in frame, £4 4s.

1100 **Portable Folding Camera**, of Spanish mahogany French polished, with two apertures adapted for taking pictures 7 inches by 6 inches—the anterior one for portraits, and the posterior one for views; with one double and one single back, and two frames for holding prepared plates, fig. 1100, without lenses, £5.

1101 **Portable Folding Camera**, as described at No. 1099, fitted with single achromatic lens, in handsome brass mountings, with rack and pinion adjustment, for taking views 7 inches by 6 inches, £6 16s 6d.

1102 **Portable Folding Camera**, as described at No. 1100, fitted with double combination of achromatic lenses, mounted in brass, with rack and pinion adjustment, for taking portraits 6 inches by 5 inches, and with single achromatic lens, in brass mountings, with rack and pinion adjustment for taking views, 7 inches by 6 inches, £14 12s. 6d.

1103 **Portable Folding Camera**, of Spanish mahogany French polished, with one aperture for views only, adapted for taking pictures 9 inches by 7 inches, with one double back for holding two pieces of prepared sensitive paper, and focusing glass in frame, £4 14s. 6d.

1104 **Portable Folding Camera**, of Spanish mahogany French polished adapted for taking pictures 9 inches by 7 inches, with two apertures—the anterior one for taking portraits, and the posterior one for views, with one double and one single back, and two frames for holding prepared plates, focusing glass in frame, fig. 1100, the front of this camera has a vertical and horizontal adjustment, so that it may be used either on its side or bottom, and the proportion of foreground and sky varied in the picture: price, without lenses, £7.

1105 **Portable Folding Camera**, as described at No. 1103, fitted with single achromatic lens, in handsome brass mountings, with rack and pinion adjustment, for taking views 9 inches by 7 inches, £8 8s.

1106 **Portable Folding Camera**, as described at No. 1104, fitted with double combination of achromatic lenses, mounted in brass, with rack and pinion adjustment, for taking views 9 inches by 7 inches, and portraits 6 inches by 5 inches—the front lens of the combination capable of being used for taking views as described at page 92, £15 8s.

1107 Ditto, with double combination lenses, for taking portraits 8 inches by 6 inches, and single lens for views 9 inches by 7 inches, £26 8s. 6d.

1108 **Portable Folding Camera**, of Spanish mahogany French polished, adapted for taking pictures 12 inches by 10 inches, with one aperture for views only, one double back for holding two pieces of prepared sensitive paper, and focusing glass in frame—the front of this camera can be moved in an horizontal and vertical direction by sliding adjustment, so as to vary the proportion of the foreground and sky in a picture, £8.

1109 **Portable Folding Camera**, of Spanish mahogany French polished, adapted for taking pictures 12 inches by 10 inches, with two apertures—the anterior one for taking portraits, and the posterior one for views, with one double and one single back, and two frames for holding the prepared plates, and focusing glass in frame—the front of this camera has a vertical and horizontal adjustment, so that it may be used either on its side or bottom, and the proportion of foreground and sky in a picture may be varied, £11 12s.

1110 **Portable Folding Camera**, as described at No. 1108, fitted with single achromatic lens, handsomely mounted in brass, with rack and pinion adjustment, for taking views of any size up to 12 inches by 10 inches, £13 5s.

1111 **Portable Folding Camera**, as described at No. 1109, fitted with double combination of achromatic lenses, in handsome brass mountings, with rack and pinion adjustment, for taking views 12 inches by 10 inches, and portraits 8 inches by 6 inches—the front lens capable of being used, for taking views as described at page 92, £29 9s.

1112 Soft leather cases for lenses, 2s., 2s. 6d., and 4s. each.

1113 Sling leather cases, with straps for ditto, 10s. 6d., 15s., and 18s. each.

## PORTABLE FOLDING AND EXPANDING CAMERAS.

See fig. 24, in THORNTWHAITE'S GUIDE TO PHOTOGRAPHY.

**Portable Folding and Expanding Camera**, of Spanish mahogany, with hinged sides, the body and sliding part folding inwards, so as to occupy but little space when closed—this form of camera possesses the advantage of its length being so capable of being varied, that lenses of almost any focal length may be used.

- 1114 **Portable Folding and Expanding Camera**, with one single back, for taking pictures 7 inches by 6 inches, with two frames for holding prepared plates, and focusing glass in frame, £6 6s.
- 1115 Ditto, fitted with single achromatic lens, mounted in brass, with rack-work adjustment, for views 7 inches by 6 inches, £8 18s. 6d.
- 1116 Ditto, fitted with double combination of achromatic lenses, for taking portraits up to 6 inches by 5 inches, £13 13s.
- 1117 **Portable Folding and Expanding Camera**, with one single back, for taking pictures 9 inches by 7 inches, with two frames for holding prepared plates, and focusing glass in frame, £7 7s.
- 1118 Ditto, fitted with single achromatic lens, mounted in brass, with rack-work adjustment, for taking views 9 inches by 7 inches, £11 0s. 6d.
- 1119 Ditto, fitted with a double combination of achromatic lenses, adapted for taking portraits 6 inches by 5 inches, and views 9 inches by 7 inches, with one double and one single back, £17 5s.
- 1120 **Portable Folding and Expanding Camera**, with one single back, for taking pictures 12 inches by 10 inches, with two frames for holding prepared plates, and focusing glass in frame, £11.
- 1121 Ditto, fitted with achromatic lens, in brass mountings, with rack and pinion adjustment, for producing pictures up to 12 inches by 10 inches, £16 5s.
- 1122 Ditto, fitted with compound achromatic lenses, for taking portraits up to 8 inches by 6 inches, and views 12 inches by 10 inches, with one double and one single back, £31 9s.

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## CASES FOR FOLDING CAMERAS.

- 1123 Solid leather case for a folding camera producing pictures 7 inches by 6 inches, fig. 1124, £1 7s. 6d.
- 1124 Ditto for a camera producing pictures 9 inches by 7 inches, £1 12s.
- 1125 Ditto for a camera producing pictures 12 inches by 10 inches, £2 10s.

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## STEREOSCOPIC CAMERA.

- 1126 **Stereoscopic Camera**, fig. 1126, mounted on base board, with parallel rulers and camera back, for taking stereoscopic pictures, adapted for being viewed by the Refracting Stereoscope, and fitted with double combination of achromatic lenses, with stops, taking either views or portraits, £6 6s.

## CAMERA BACKS, OR EXPOSING FRAMES.

*All our camera backs and the openings of the cameras are now made to standard sizes, so that, in case a purchaser who may possess one of our cameras should require additional backs, he can obtain them without sending us the camera to have them fitted.*

- 1127 **Single Camera Backs or Exposing Frames,** to fit cameras producing pictures 6 inches by 5 inches, with two frames for holding prepared plates, 17s.
- 1128 Ditto, to fit cameras producing pictures 7 inches by 6 inches, £1 2s.
- 1129 Ditto, to fit cameras producing pictures 9 inches by 7 inches, £1 10s.
- 1130 Ditto, to fit cameras producing pictures 12 inches by 10 inches, £2 12s.

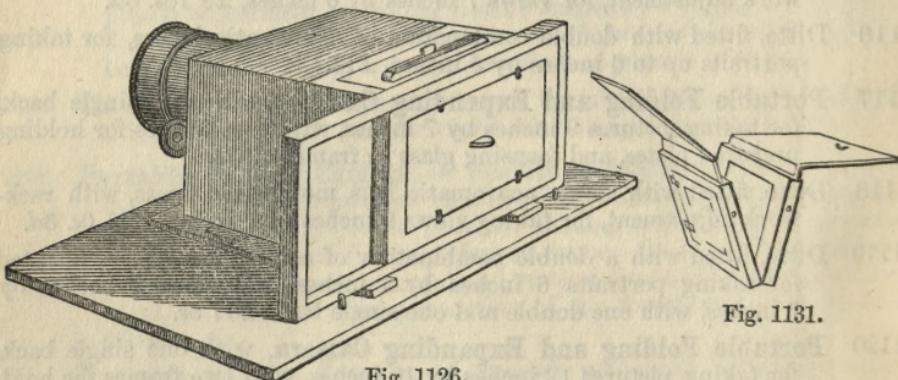


Fig. 1131.

Fig. 1126.

## DOUBLE CAMERA BACKS.

HORNE & CO.'S double back is so constructed that two pieces of sensitive paper can be laid into it, back to back, and is furnished with a sliding cover to each. When a camera is arranged to take a view, with the double back in its place, the anterior sliding cover is drawn out so as to expose one sheet of the sensitive paper to the action of light. After the necessary exposure has taken place, the sliding cover is pushed down, the double back withdrawn from the camera, and if a second picture is required of the same object or view, the back is turned round and replaced in its position in the camera; but now, having the other sensitive sheet next the lens, the anterior sliding cover is withdrawn, and the paper exposed the necessary time to the action of light; when this has taken place, the sliding cover is pushed down so as to guard the paper from the influence of light in the usual manner.

This form of back offers the advantage of affording the means of taking two pictures without any increase in size over the old form of single back, in which one picture only could be taken without changing, and can be applied to any form of camera.

- 1131 **Double Camera Backs,** to fit cameras producing pictures 7 inches by 6 inches, fig. 1131, £1 2s.
- 1132 Ditto, to fit cameras producing pictures 9 inches by 7 inches, £1 10s.
- 1133 Ditto, to fit cameras producing pictures 12 inches by 10 inches, £2 12s.

1134 Parallel Mirrors, mounted in brass frame, to attach to the front of the camera, for taking pictures in a correct position for  $\frac{1}{4}$ -plate lenses, £1 10s.

1135 Ditto,  $\frac{1}{2}$ -plate ditto, £2 12s. 6d.

**Photographic Landscape Lenses**, unmounted, of ordinary achromatic construction, suitable for taking views by the waxed paper or collodion process.

*Our own manufacture of landscape or portrait lenses are not sold except in a mounted state, as described at page 91.*

1136	1 $\frac{1}{2}$ inch diameter, about 7 inches focus	...	...	...	£0	10	0
1137	2 "	" 9	"	"	0	14	0
1138	2 $\frac{1}{4}$ "	" 10	"	"	0	18	0
1139	2 $\frac{1}{2}$ "	" 12	"	"	1	5	0
1140	3 "	" 14	"	"	1	16	0

*Plano-convex, crossed, meniscus, and every other description of lens required in photographic experiments.*

1141 **Claudet's Focimeter**, for ascertaining the amount of separation existing between the optical and chemical foci of lenses, £1 10s.

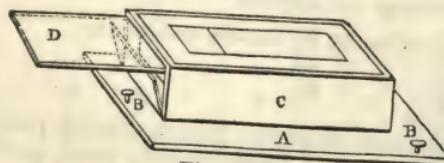


Fig. 1147.

### IODINE AND BROMINE PANS.

**Iodine and Bromine Pans**, of glass, with air-tight ground glass covers.

1142 For plates up to 4 $\frac{1}{2}$  inches by 4 $\frac{1}{4}$  inches ... ... ... £0 8 6

1143 " 6 $\frac{1}{2}$  " 4 $\frac{3}{4}$  " ... ... ... 0 12 0

1144 " 8 $\frac{1}{2}$  " 6 $\frac{1}{4}$  " ... ... ... 1 5 0

1145 Wood frames for holding the plates of any size for No. 1142 Iodine and Bromine pans, 1s. each.

1146 Ditto, for 1143 or 1144 pans, 1s. 6d. each.

**Iodine and Bromine Boxes**, single, of walnut wood, with delf pans, ground air-tight glass covers, and frames for holding the plates.

1147 For plates up to 4 $\frac{1}{4}$  inches by 3 $\frac{1}{4}$  inches ... ... ... £0 13 0

1148 " 6 $\frac{1}{2}$  " 4 $\frac{3}{4}$  " ... ... ... 0 16 0

1149 " 8 $\frac{1}{2}$  " 6 $\frac{1}{2}$  " ... ... ... 1 1 0

**Iodine and Bromine Box**, single, of French polished mahogany, with glass pan, ground air-tight glass cover, frames for holding plates, and mirror for viewing the plate while under the influence of the vapour.

1152 For plates 4 $\frac{1}{4}$  inches by 3 $\frac{1}{4}$  inches ... ... ... £1 4 0

1153 " 6 $\frac{1}{2}$  " 4 $\frac{3}{4}$  " ... ... ... 1 11 6

1154 " 8 $\frac{1}{2}$  " 6 $\frac{1}{2}$  " ... ... ... 2 12 6

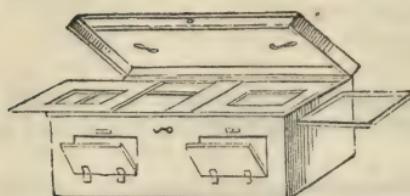


Fig. 1155.

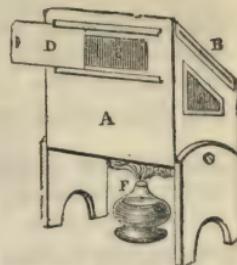


Fig. 1161.

### IMPROVED IODIZING AND BROMINE APPARATUS.

**Double Iodine and Bromine Boxes**, consisting of two stout glass pans, enclosed in mahogany or walnut wood case, with spring bottoms and air-tight glass covers, and set of frames for holding the plates. Two mirrors are placed on one side for viewing the plate while being prepared; and on the other two, apertures for the admission of light. The great advantage of this form of apparatus for preparing plates, consists in the facility and certainty with which the sensitive coatings are applied.

1155	For plates $4\frac{1}{2}$ inches by $3\frac{1}{4}$ inches, and under	...	...	£2 5 0
1156	" $6\frac{1}{2}$ " $4\frac{3}{4}$ " "	...	...	3 0 0
1157	" $8\frac{1}{2}$ " $6\frac{1}{2}$ " "	...	...	5 0 0

**Double Iodine and Bromine Boxes**, French pattern, of walnut wood, with delf pans, ground air-tight glass cover, and set of frames, without mirrors.

1158	For plates up to $4\frac{1}{4}$ inches by $3\frac{1}{4}$ inches	...	...	£1 6 0
1159	" $6\frac{1}{2}$ " $4\frac{3}{4}$ " "	...	...	1 12 0
1160	" $8\frac{1}{2}$ " $6\frac{1}{2}$ " "	...	...	2 2 0

### MERCURY BOXES.

**Mercury Box**, of polished mahogany, with window of yellow glass, for viewing the picture during the action of the mercury, shifting legs, cast-iron cistern, and frames, complete, fig. 1161.

1161	For plates $4\frac{1}{2}$ inches by $3\frac{1}{4}$ inches	...	...	£1 1 0
1162	" $6\frac{1}{2}$ " $4\frac{3}{4}$ " "	...	...	1 10 0
1163	" $8\frac{1}{2}$ " $6\frac{1}{2}$ " "	...	...	1 15 0

**Mercury Box**, French pattern, walnut wood, with thermometer.

1164	For plates $4\frac{1}{2}$ inches by $3\frac{1}{4}$ inches	...	...	£0 12 0
1165	" $6\frac{1}{2}$ " $4\frac{3}{4}$ " "	...	...	0 16 0
1166	" $8\frac{1}{2}$ " $6\frac{1}{2}$ " "	...	...	1 2 0

1167 **Thermometers**, with ivory scales to mercury boxes, 7s. 6d. each.

1168 **Frames** for the above mercury box, any size, 1s. 6d. each.

**Silvered Plates for the Daguerreotype, of English manufacture.**

1169	Size 2½ inches by 2 inches	...	...	...	per dozen £0 12 0
1170	" 2½ " 3½ "	...	...	...	0 18 0
1171	" 4 " 3 "	...	...	...	1 8 0
1172	" 4½ " 3½ "	...	...	...	1 12 0
1173	" 5 " 4 "	...	...	...	2 5 0
1174	" 6½ " 4½ "	...	...	...	3 5 0
1175	" 8½ " 6½ "	...	...	...	5 10 0

**Silvered Plates for the Daguerreotype, best French manufacture.**

Size.	No. 40.			No. 30.			Electro-plated.		
	£	s.	d.	£	s.	d.	£	s.	d.
1180 2½ inches by 2 inches, per dozen	0	3	6	...	0	4	0	0	5 6
1181 2½ " 3½ "	0	5	6	...	0	6	6	0	8 9
1182 4 " 3 "	0	8	0	...	0	9	0	0	10 6
1183 4½ " 3½ "	0	8	6	...	0	9	6	0	11 0
1184 5 " 4 "	0	12	0	...	0	13	6	0	16 0
1185 6½ " 4½ "	0	17	6	...	0	18	6	1	1 0
1186 8½ " 6½ "	1	14	0	...	1	16	6	2	0 0

**Plate Boxes,** of polished mahogany, for holding one dozen daguerreotype plates.

1187	For plates 2½ inches by 2 inches	... £0 3 0
1188	" 3½ " 2½ "	... 0 3 6
1189	" 4 " 3 "	... 0 4 0
1190	" 4½ " 3½ "	... 0 4 3
1191	" 5 " 4 "	... 0 4 6
1192	" 6½ " 4½ "	... 0 5 6
1193	" 8½ " 6½ "	... 0 6 6

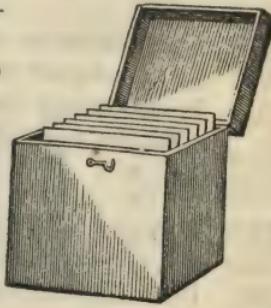


Fig. 87.

**POLISHING APPARATUS, &c.**

1194 **Lathe,** complete, with collar, mandrel, iron wheel and treddle, wood frame and bed, mounted with two circular velvet buffs, 9 inches diameter, and two plate holders, for sixth or quarter plates, from £5 5s.

**PLATE-HOLDERS.**

**Metal Plate-holders,** for use with circular buffs in the lathe, or for securing the plate while buffing by hand, of superior make.

1195	For plates, 2½ inches by 2 inches	... ... ... ... £0 6 0
1196	" 3½ " 2½ "	... ... ... ... 0 7 0
1197	" 4 " 3 "	... ... ... ... 0 8 0
1198	" 5 " 4 "	... ... ... ... 0 10 0

1199 **Hard Wood Handle,** with steel pin for use with ditto ... 0 1 0

1200 **Plate-holders,** of wood, with brass corners and cramp to fix to table while cleaning or polishing, for any size of plate from 2½ inches by 2 inches to 8½ inches by 6½ inches, 2s. to 4s.

**American Plate-holder**, consisting of an iron clamp and screw, with blocks for the various sized plates; this arrangement retains the plate very firmly during the application of the buff, and will be found of great convenience, especially for French plates.

1201	<b>Clamp</b>	...	...	...	...	...	...	...	£0	7	6
1202	<b>Iron Block</b> , for plates $2\frac{1}{2}$ inches by 2 inches								0	2	0
1203	"	$2\frac{3}{4}$	"	$3\frac{1}{4}$	"	...	...	...	0	2	6
1204	"	4	"	3	"	...	...	...	0	3	0
1205	"	$6\frac{1}{2}$	"	$4\frac{3}{4}$	"	...	...	...	0	5	0
1206	<b>Plate-bender</b> , for bending the edges of thin French plates, to prevent injury to the buff, 8s.										
1207	<b>Pliers</b> , of an improved form, for bending the corners of plates, and also for holding the plate in drying, 2s.										

### ELECTRO-SILVERING APPARATUS.

*For giving a coating of pure silver to Daguerreotype plates, and also for re-silvering used-up plates.*

1214	Smee's batteries, one-pint size, 10s.										
1215	Ditto, one-quart size, 12s. 6d.										
1216	<b>Precipitating Cells</b> , fitted with binding screws, complete, for plates 4 inches by 3 inches	...	...	...	...	...	£0	4	6		
1217	" $6\frac{1}{2}$ "	$4\frac{3}{4}$	"	...	...	...	0	7	0		
1218	" $8\frac{1}{2}$ "	$6\frac{1}{2}$	"	...	...	...	0	17	6		
1219	Pure silver foil for the above, 10s. per ounce.										
1220	Argento-cyanide of potassium, or silvering solution, 10s. per pint.										
1221	Ditto ditto, full strength, 1s. per ounce.										
1222	<b>Electro-silvering Apparatus</b> , complete, for silvering any size plate up to $6\frac{1}{2}$ inches by $4\frac{3}{4}$ inches, consisting of a No. 1204 Smee's Battery, glass cell fitted with the necessary binding screws, one ounce of pure silver in foil, and one pint of silvering solution of the proper strength in stoppered glass bottle, £1 17s. 6d..										
1223	Ditto ditto, for any size plate up to $8\frac{1}{2}$ inches by $6\frac{3}{4}$ inches, £3 3s.										

### BUFFS.

Buffs, to work with the hand, covered with prepared silk or cotton velvet or doeskin leather, fig. 1225, or plain, according to size.



Fig. 1225.

	Size.	Cotton Velvet.	Silk Velvet.			Doeskin.		
			£	s.	d.	£	s.	d.
1126	12 inches by 3 inches	...	0	3	0	0	4	0
1227	" 3 "	...	0	4	0	0	5	0
1228	" 4 "	...	0	4	6	0	6	0
1229	" 6 "	...	0	5	0	0	7	6
1230	Best carded cotton wool, 3s. per lb.							
1231	<b>Sifting Boxes</b> , hard wood, for containing polished powders, 1s. 6d. each.							

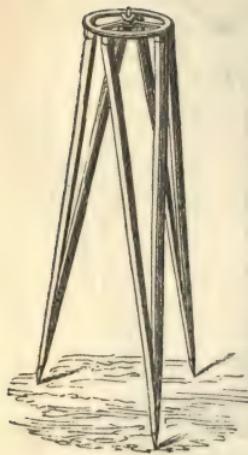


Fig. 1232.

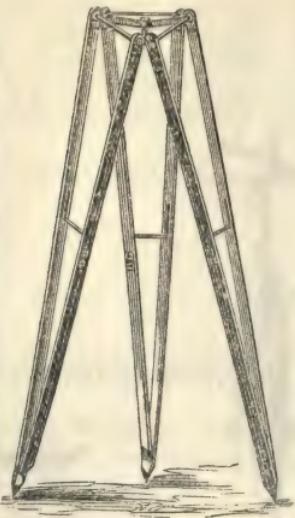


Fig. 1234.



Fig. 1237.

### CAMERA STANDS.

In order to keep the camera steady when taking views or portraits, and to raise or depress it as may be required, a camera stand is absolutely essential. If for the operating room only, where weight or bulk is no consideration, the table-stand, fig. 1237, is the most useful; but where the object is to take views, &c., as in travelling, the portability of the stand becomes of equal importance with its steadiness. The forms of fig. 1232 or 1234 answer well, and will be found suitable for the purposes intended.

- 1232 **Camera Stand**, fig. 1232, with double tripod legs and circular wooden top, with plate to be fixed to the bottom of camera, and tightening screw, small size, 4 feet high, 18s.
- 1233 **Ditto**, large size, 4½ feet high, 24s.
- 1234 **Camera Stand**, fig. 1234, with double tripod legs with brass stretchers, triangular brass top, with plate to be fixed to the bottom of camera, and tightening screw—this form of stand will be found very convenient for use, and, from its construction, remarkably firm and portable, and suitable for any sized camera, £1 15s.
- 1235 **Camera Stand**, with brass top and ash legs, *very light and steady*, £2 2s.
- 1236 **Camera Stand**, with jointed legs, capable of being packed in an ordinary portmanteau, £2 5s.
- 1237 **Table Stands**, with all the required adjustments, particularly adapted for the operating room, in white wood, with brass screws, fig. 1237, £1 15s.
- 1238 **Ditto**, in oak, £2 2s.

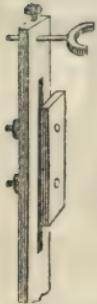


Fig. 1239.



Fig. 1240.



Fig. 1241.

### HEAD RESTS.

Head rests are necessary in order to keep the head of the sitter perfectly steady whilst a portrait is taken.

1239 **Head Rest**, to attach to the back of a chair, of the simplest construction, fig. 1239, 4s.  
 1240 **Head Rest**, to attach to the back of a chair, with joints, so that the head piece can be raised, depressed, or placed at any required angle, fig. 1240, 10s. 6d.  
 1241 **Universal Head Rest**, mounted on heavy foot, with sliding adjusting tube for steadyng the head, when the person is either standing or sitting, without the aid of a chair, fig. 1241, £3 13s. 6d.

### WASHING PANS.

**Porcelain Pans**, with flat bottoms ; shallow, for preparing calotype or positive paper, and deep, for washing, &c.

1241	Shallow, suitable size for paper,	5 inches by 4 inches	... £0	0	10
1241a	Deep	" 5 "	4 "	0	1 0
1242	Shallow	" 7 "	6 "	0	1 6
1242a	Deep	" 7 "	6 "	0	1 9
1243	Shallow	" 9 "	7 "	0	1 9
1243a	Deep	" 9 "	7 "	0	2 0
1244	Shallow	" 11 "	9 "	0	3 0
1244a	Deep	" 11 "	9 "	0	3 9
1245	Shallow	" 12 "	10 "	0	4 0
1245a	Deep	" 12 "	10 "	0	5 6
1246	Shallow	" 15 "	9 "	0	6 6
1246a	Deep	" 15 "	9 "	0	8 0
1247		17 "	12 "	0	14 0

**Glass Dishes**, with polished bottoms and edges, for washing and preparing calotype paper, possessing the great advantage over the porcelain trays of not absorbing chemical solutions, so that they may, if required, be used for different solutions, one after the other, without fear of that admixture that would ensue if the ordinary pans were employed.

1249	7½	inches by 5½ inches, inside measurement ...	...	...	£0	6	0
1250	9½	" 7½ "	"	"	...	...	0 11 0
1251	10½	" 8½ "	"	"	...	...	0 16 0
1252	12½	" 10½ "	"	"	...	...	1 1 0

### COLLODION DIPPING BATHS.

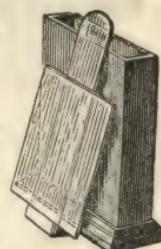


Fig. 1256.

**Collodion Dipping Baths**, of glass, fitted into a mahogany stand, with glass dipper, fig. 1256.

1256	For plates 4 inches by 3 inches	...	...	£0	4	0
1257	" 5 "	4 "	"	...	0	5 0
1258	" 6 "	5 "	"	...	0	7 0
1259	" 8½ "	6½ "	"	...	0	17 6

**Collodion Dipping Baths**, of gutta percha, with support and glass dippers, fig. 1260.

1260	For plates 4 in. by 3 in., and dipper	£0	3	6
1261	" 5 " 4 "	...	0	4 6
1262	" 6 " 5 "	...	0	5 6
1263	" 8 " 6 "	...	0	8 0
1264	" 8½ " 6½ "	...	0	10 6

1265 **Glass Dippers**, for any size of plate up to 5 inches by 4 inches, 6d.

1266 Ditto, up to 7 inches by 6 inches, 1s.

1267 Ditto, up to 10 inches by 8 inches, 1s. 6d.

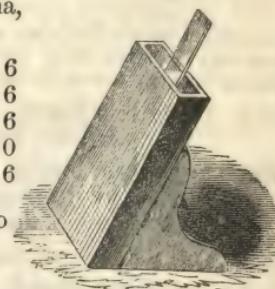


Fig. 1260.

**Glass Plates for the Collodion Process**, of the best patent plate, with ground edges.

1268	Size 3½ inches by 2¾ inches	...	...	...	per dozen	£0	1	3
1269	" 4 "	3 "	...	...	...	"	0	1 8
1270	" 4½ "	3½ "	...	...	...	"	0	1 9
1271	" 5 "	4 "	...	...	...	"	0	2 6
1272	" 6 "	5 "	...	...	...	"	0	3 9
1273	" 6½ "	4½ "	...	...	...	"	0	3 9
1274	" 7 "	6 "	...	...	...	"	0	5 6
1275	" 8 "	6 "	...	...	...	"	0	6 0
1276	" 8½ "	6½ "	...	...	...	"	0	7 0
1277	" 9 "	7 "	...	...	...	"	0	8 0

10 in. by 8 in., 12s. doz.; 12 in. by 10 in., 17s. 6d. doz.; and larger sizes to order.

Sizes not in this list charged proportionately dearer.

*Plate boxes for glass plates, see next page.*

**Plate Boxes,** of white wood, for holding one dozen glass plates, fig. 1278.

		s. d.			s. d.
1278	For plates $3\frac{3}{4}$ in. by $2\frac{3}{4}$ in.	2 0	1293	For plates $6\frac{1}{2}$ in. by $4\frac{3}{4}$ in.	3 6
1279	" 4 " 3 "	2 3	1294	" 7 " 6 "	4 0
1290	" $4\frac{1}{4}$ " $3\frac{1}{4}$ "	2 6	1295	" 8 " 6 "	4 6
1291	" 5 " 4 "	3 0	1296	" $8\frac{1}{2}$ " $6\frac{1}{2}$ "	4 6
1292	" 6 " 5 "	3 6	1297	" 9 " 7 "	5 6



Fig. 1298.

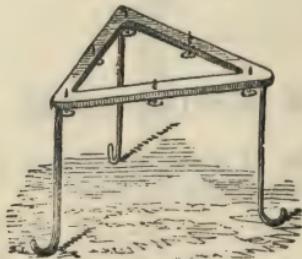


Fig. 1299.

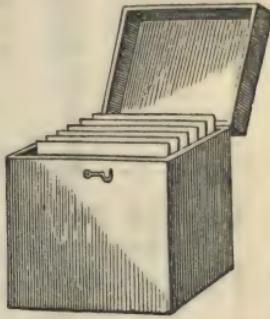


Fig. 1278.

### LEVELLING STANDS.

Levelling stands for fixing glass plates perfectly level, so that developing or other solutions may be poured on to them without fear of its running off, and for use in supporting Daguerreotype pictures whilst being fixed by the solution of gold.

1298 **Levelling Stand**, iron foot, with adjusting screws, vertical rod, and ring, fig. 1298, 3s. 6d.

1299 **Levelling Stand**, triangular form, of bronzed brass, with three feet and six adjusting screws, for supporting any size plate up to  $6\frac{1}{2}$  inches by  $4\frac{3}{4}$  inches, fig. 1299, 7s. 6d.

1300 Ditto, for supporting the larger size plates, 8s. 6d.

1301 **Levelling Stand**, oval cast-iron foot, vertical rod, and triangular support, with adjusting screws, and binding screw to set it at any height, for supporting plates of any size up to 6 inches by 5 inches, 7s. 6d.

1302 Levelling stand, of glass, tripod form, triangular top, 2s.

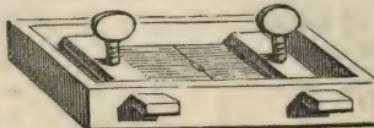


Fig. 1303.

**Horne & Co.'s Reversing Frames**, suitable for obtaining positive pictures from both glass and paper negatives, with jointed back, allowing the progress of the picture to be observed without disturbing its position.

1303	Size of glass 6 inches by 5 inches	...	...	...	...	£0 7 0
1304	" $7\frac{1}{2}$ " $6\frac{1}{2}$ "	...	...	...	...	0 9 0
1305	" $9\frac{1}{2}$ " $7\frac{1}{2}$ "	...	...	...	...	0 10 0
1306	" $11\frac{1}{2}$ " $9\frac{1}{2}$ "	...	...	...	...	0 16 0

**BRUSHES.**

1307 **Camel's Hair Brushes**, for spreading solutions on paper, &c., small size, round form, in quill handles, 3d.  
 1308 Large size, in turned wood handles, 1s.  
 1309 **Camel's Hair Pencil**, flat form, fitted to wooden handles, without tin or other metal, for rapidly coating paper, &c., with solutions, 1 inch wide, 1s.  
 1310 Ditto, 1½ inch wide, 1s. 6d.  
 1311 Ditto, 2 inches wide, 2s.  
 1312 Buckle's brushes for applying solutions to paper, as recommended in *Thornthwaite's Guide to Photography*, consisting of a glass handle, silver wire hook, and a supply of cotton wool, 2s. each.  
 1316 **Glass Stirring Rods**, for mixing liquids, 6 inches long, 3d. each.  
 1317 Ditto, 9 inches long and stouter diameter, 6d.  
 1318 **Glass Rods**, with bent handles, for spreading solutions evenly on paper, without fear of contamination from impurities that sometimes arise from using hair brushes.  
 1319 For use to cover paper, 9 inches square, 1s.  
 1320 For use to cover paper, 7 inches square, 1s.  
 1321 **Spirit Lamps**, in brass, with screw cap, for use in travelling, 3s. 6d.

**SCALES AND WEIGHTS.**

**Balances**, with steel beam, and sets of weights from two drams down to half a grain, in a box.

1323 Common beam, brass pan, in oak box, 3s. 6d.  
 1324 Superior beam, brass pan, in mahogany box, 5s.  
 1325 Superior beam, glass pans, in oak box, 7s. 6d.  
 1326 Oval box end beams, with brass pans, in mahogany box, 7s. 6d.  
 1327 Oval box end beams, with glass pans, in mahogany box, 10s. 6d.  
 1328 Oval box end beam balance, with brass pillar and glass shifting pan with drawer for weights and packing, £2 2s.  
 1329 **Filterer**, in stoneware, for purifying and preserving water, half-gallon size, with brass tap, &c., complete, 10s.

**Glass Mortars and Pestles.**

1331 Contents, ¼ pint, 3s.  
 1332 Contents, ½ pint, 4s. 6d.  
 1333 Contents, 1 pint, 7s.

**Glass Funnels**, for filtration and decanting.

1335 2 inches diameter, 5d.  
 1336 4 inches diameter, 8d.  
 1337 **Filters**, ready cut, in packets of 100, for 1335 funnel, 7d.  
 1338 Ditto, for 1336 funnel, 1s. 4d.

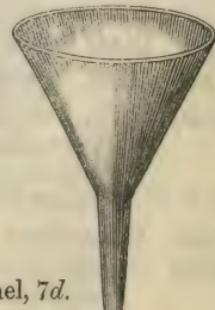


Fig. 1335.

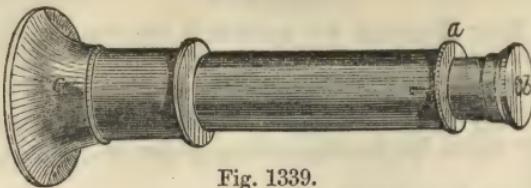


Fig. 1339.

**1339 Focusing Eye-pieces**, in brass, with clamping screw and case, fig. 1339, 14s.

In order to obtain that extreme sharpness of outline so necessary in photographic pictures, it is absolutely essential that the focusing the object on the ground glass focusing frame be performed with extreme accuracy. The unassisted eye is of itself not sufficient to effect this, and the focusing eye-piece must be employed in the following manner:— Adjust the eye-piece so that it shall exactly focus the roughness of the focusing glass. To do this, carefully note the side of the focusing glass that is outwards when the frame is in its position in the camera, and take the focusing frame in the right hand, so that this side shall be nearest you; then take the focusing eye-piece in the left hand, having previously unscrewed the clamping screw *a*, and fix its broad *end* on the focusing glass, and observe if the roughness of the surface of the focusing glass appears sharp and defined to the eye looking into the eye end *b*. If such is not the case, shift the sliding tube up or down until the greatest amount of clearness is produced, and then tighten the clamping screw, so as to prevent any shifting taking place, and to insure the eye-piece remaining in perfect adjustment. To use it, the broad end *c* is placed on the ground focusing glass, and the lens or body of the camera shifted in or out until the greatest amount of sharpness of the picture is produced. At the suggestion of Mr. Horne, many persons use a focusing glass with a central polished spot about the size of a shilling, and having arranged the camera so that the principal object shall occupy the required position, the base of the eye-piece is placed over the central polished spot, and the body of the camera or the lens is shifted in or out until the maximum amount of sharpness of the picture when viewed through the eye-piece is produced. This central polished spot is of essential use where a focusing eye-piece is used, as, the image being received on a polished surface, and there viewed by the eye-piece, the indistinctness caused by the irregular refraction of the ground glass is entirely obviated. But it must be borne in mind, that the image viewed through the central spot by the *naked eye* cannot be used to determine when the best focus is obtained, and that this central spot is only useful when the focusing eye-piece is used.

**1340 Focusing glass**, in japanned tin, 2s. 6d.

**1341 Instrument to count Seconds**, with alarum, £3.

**1342 Ditto**, without alarum, £1 5s.

**1343 Glass Carboy**, enclosed in wicker basket work, for holding distilled water, 2 gallons, 4s. 6d.

Washing trays, see No. 1242.

**1344 Glass Spirit Lamps**, 2 ounces, fig. 1344, 1s. 6d.

**1345 Ditto**, 3 ounces, with screwed wick holder, 2s. 6d.

**1346 Ditto**, 4 ounces, ditto, 3s. 6d.

**Photographic Lanterns**, glazed with yellow glass, for use in preparing sensitive papers, &c., so as to protect the sensitive coating from being influenced by the light.

**1347 Square form**, with three sides glazed, and folding handle, 4s.

**1348 Circular form**, bull's eye front, with yellow glass circle and rotating body, so that the light may be partially or completely shut off if required, 12s.



Fig. 1344.



Fig. 1349.

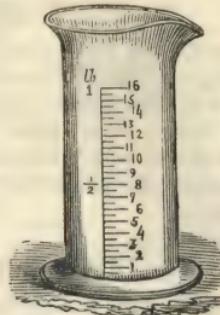


Fig. 1358.

**Graduated Glass Measures**, conical form, accurately divided.

		s. d.		s. d.
1349	Contents 2 drams	... 1 0	1352	Contents 4 ounces
1350	" 1 ounce	... 1 3	1353	" 6 "
1351	" 2 ounces	... 1 4	1354	" 10 "

**Graduated Glass Measures**, cylindrical form.

		s. d.		s. d.
1358	Contents 1 dram	... 1 0	1363	Contents 8 ounces
1359	" 2 drams	... 1 0	1364	" 16 "
1360	" 1 ounce	... 1 3	1365	" 20 "
1361	" 2 ounces	... 1 4	1366	" 32 "
1362	" 4 "	... 2 0	1367	" 40 "

**Preparing Boards**, on which paper is pinned, in order to apply sensitive coatings by a brush.

1369 Size for preparing paper 7 inches by 6 inches, 2s. 6d.

1370 Size for preparing paper 9 inches by 7 inches, 3s.

1371 **Brass Wire Forceps**, for holding albumenized glass plates whilst being prepared, as recommended in "Thornthwaite's Guide to Photography," 2s. 6d.

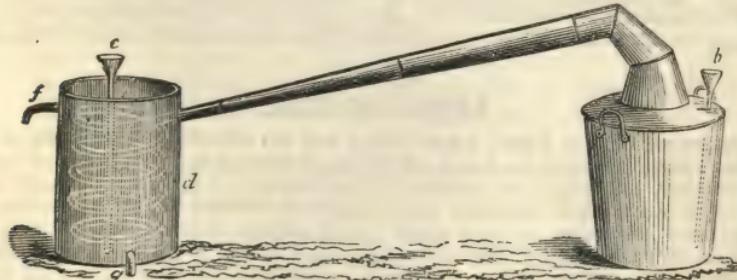


Fig. 1374.

**Still**, with refrigerator, for the distillation of water with the aid of a common fire, fig. 1374.

1375 1-gallon size, in tin, £1 1s.

1376 2-gallon size, in tin, £1 7s. 6d.

1377 1-gallon size, body of copper, £2 2s.

1378 2-gallon size, body of copper, £3 3s.

## PHOTOGRAPHIC PICTURES.

1379 **Photographic Pictures**, comprising a great variety of views taken in all parts of the globe, architectural elevations, details and perspective views of the finest palaces, churches, &c., in Venice, Russia, France, and Rome; also, views in Egypt, Syria, and the East, &c. Some of these are of large size, measuring 18 inches by 14 inches, 14 inches by 12 inches; the prices vary according to size and excellence, from 3s. 6d. to 12s. 6d.

## STEREOSCOPIC PICTURES.

1380 Stereoscopic Pictures, on paper, taken by photography, embracing views taken from some of the most remarkable places in Europe, 1s. 3d.

1381 Ditto, of superior character, having finest detail, and taken by superior artists, 2s.

1382 Transparent Stereoscopic Pictures, on glass, taken from albumen or collodion negatives, 5s.

1383 Ditto, of a very superior character, having the minutest detail exquisitely represented, and the general picture artistically produced, 7s. 6d.

The value of stereoscopic pictures taken by photography depends so much on the minute detail being preserved, and the careful selection of such spots as afford artistic pictures, the productions of superior artists always command a higher price than those of a mediocre character. This remark may tend to explain the variation in price of somewhat similar articles.

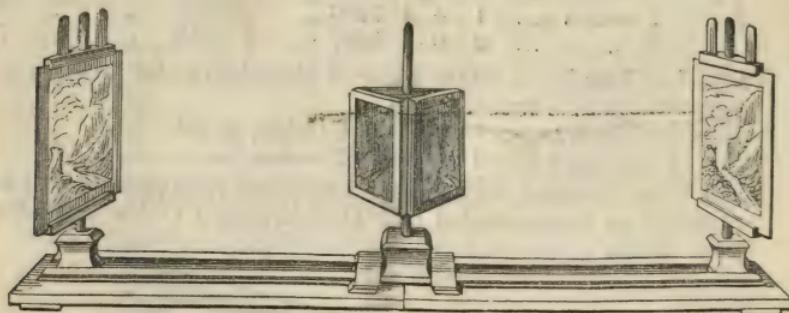


Fig. 1386.

## STEREOSCOPES.

Stereoscopes are of two kinds, the reflecting and the refracting; the former is used to exhibit large pictures, whilst the latter only admits of viewing representations of buildings, scenery, statuary, &c., which are capable of being reduced to a small size without suffering any loss of artistic effects. Pictures taken, so as to be viewed by the stereoscope, afford one of the most interesting subjects which optical science affords, as two pictures of the same subject, properly taken at different angles, when viewed by the stereoscope, stand out as one picture with all the boldness of nature; indeed, it appears to possess all the attributes of solidity, viz., length, breadth, and thickness. If the pictures are taken from life, the faithfulness of the representation is so complete, that no description can convey a just idea of its perfection. The effect must be seen to be appreciated.

1386 **Reflecting Stereoscope**, for large views, with adjustment, so that either the pictures or mirror may be raised, depressed, or moved horizontally, as may be required, £2 2s.

1387 Photographic Pictures, in pairs, to be viewed by the refracting stereoscope in great varieties, 21s. per pair.

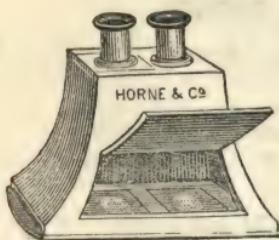


Fig. 1390.



Fig. 1393.

1388 **Refracting Stereoscope**, in japanned tin, with one dozen printed diagrams, in box, serving to illustrate the optical facts displayed by this instrument, 6s.

1389 **Refracting Stereoscope**, in mahogany body, with glass bottom and window, 10s.

1390 **Refracting Stereoscope**, in polished mahogany, with brass eye-pieces, 15s.

1391 **Refracting Stereoscope**, in polished mahogany, with brass eye-pieces, glass bottom, and hinged flap, 21s.

1392 **Refracting Stereoscope**, in polished mahogany, with highly finished eye-pieces, glass bottom, and hinged flap, best make, of very superior appearance, £1 5s.

1393 **Refracting Stereoscope**, of the best construction, mounted on massive brass stand, capable of being raised, depressed, or inclined to any angle, so as to admit of the exhibition of stereoscopic pictures to a number of persons consecutively, without fear of any derangement of the instrument, £2 15s.

### PORTABLE TENTS.

1394 **Portable Tent**, for operating in the open air with collodion or other sensitive compounds, consisting of a tripod stand 6 feet high, supporting a moveable and folding table, capable of being fixed 3 feet from the ground, with black cloth covering lined with yellow linen—the legs jointed so as to fold into lengths of 3 feet, which enables the whole to be packed into a small compass, £3 10s.

1395 Ditto, with waterproof covering, square form, £6 6s.

1396 **Pneumatic Plate-holder**, fig. 1396, for holding glass plates whilst being cleaned, or during the application of collodion or albumen: to use it, the point of the forefinger is pressed on the brass top, and whilst the pressure of the finger is continued, the other end *a* is pressed on the glass plate; on removing the finger, the plate will be found to adhere and may be cleaned, or a sensitive compound applied; the application of the pressure will detach the plate from the holder: 2s. each.



Fig. 1396.

## PHOTOGRAPHIC PAPER,

*Selected with the greatest care from the following eminent makers.*

### **Canson Freres,**

1397 Negative, size  $22\frac{1}{2}$  inches by  $17\frac{1}{2}$  inches, 3s. per quire.  
 1398 Positive, size  $22\frac{1}{2}$  inches by  $17\frac{1}{2}$  inches, 4s. per quire.

### **Whatman's or Holingsworth's.**

1399 Negative, size 19 inches by 15 inches, 3s. per quire.  
 1400 Positive, size 19 inches by 15 inches, 3s. per quire.  
 1401 " Towgood's, size 19 inches by 15 inches, 2s. 6d. per quire.

### **Turner's Photographic Paper.**

1404 Negative, size 15 inches by 9 inches, 2s. 6d. per quire.  
 1405 Positive, size 15 inches by 9 inches, 1s. 6d. per quire.

### **German Paper.**

1406 Negative, size  $22\frac{1}{2}$  inches by  $17\frac{1}{2}$  inches, 3s. per quire.  
 1407 Positive, size  $22\frac{1}{2}$  inches by  $17\frac{1}{2}$  inches, 4s. per quire.

1408 **Horne & Co.'s Waxed Paper**, size  $17\frac{1}{2}$  in. by  $11\frac{1}{4}$  in., 7s. per quire.

1409 **Horne & Co.'s Waxed Paper**, iodized, size  $17\frac{1}{2}$  inches by  $11\frac{1}{4}$  inches, 15s. per quire.

1410 Portfolios for waxed paper, &c.,  $11\frac{1}{2}$  inches by  $9\frac{1}{2}$  inches, 2s. 6d.

1411 Ditto,  $17\frac{1}{2}$  inches by  $11\frac{1}{4}$  inches, 3s. 6d.

1412 **Horne & Co.'s Waxed Paper rendered sensitive**, and ready for use, to keep ten days, size  $11\frac{1}{4}$  inches by 9 inches, 9s. per dozen.

1413 **White Bibulous Paper**, prepared free from iron or other impurities, 1s. 3d. per quire.

1414 **Papier Joseph**, 1s. per quire.

## IODIZED PAPER.

### **Horne & Co.'s Iodized Paper.**

1416 Size 7 inches by 6 inches, 3s. per dozen.  
 1417 Size  $9\frac{1}{2}$  inches by  $7\frac{1}{2}$  inches, 5s. per dozen.  
 1418 Size 10 inches by 8 inches, 8s. per dozen.  
 1419 Size 15 inches by 12 inches, 12s. per dozen.  
 1420 Solution for iodizing paper, 1s. 6d. per ounce.  
 1421 Solution for iodizing waxed paper, 5s. per pint.  
 1422 Solution for rendering the above sensitive, 9s. per pint.

## ALBUMENIZED PAPER.

1423 **Horne & Co.'s Albumenized Paper**, for printing positives in a very superior manner, by the use of which greater depths of tone and finer detail can be obtained than by any other paper hitherto introduced—size  $11\frac{1}{4}$  inches by 9 inches, with direction for use, 5s. per quire.  
 1424 Ditto,  $17\frac{1}{2}$  inches by  $11\frac{1}{4}$  inches, 10s. per quire.

## PHOTOGRAPHIC COLOURS.

1425	Box containing 7 colours, with brushes, gold and silver shell	£0	7	6
1426	Ditto, containing 14 colours	...	...	0 10 6
1427	Ditto, " 21 "	...	...	0 15 0
1428	Separate colours, of all tints, 1s. per bottle.			
1429	Camel's hair brushes, 1s. per dozen.			
1430	Sable ditto, 8s. ditto.			
1431	Elastic bottle, for removing dust from the plate, small size, 2s. 6d.			

## FRAMES FOR MOUNTING PHOTOGRAPHIC PICTURES.

*The gilt mats or openings of the ormolu frames, the papier maché frames, the morocco cases and frames, and passe partouts, are of three shapes: the dome, similar to fig. 1434; the oval, similar to fig. 1438; and the cushion-shape, like fig. 1442. Our customers are recommended to state which shape they prefer when giving their orders for this article.*



Fig. 1431.



Fig. 1438.



Fig. 1442.

## ORMOLU FRAMES.

The frames are made of a metal closely resembling gold, in the Louis XIV. style of pattern, with either dome, oval, or cushion-shaped gilt mats, with best white glass and suspension ring, fig. 1434, and are intended for holding pictures either on metal, glass, or paper.

1434	For holding pictures $2\frac{1}{2}$ inches by 2 inches	...	...	...	£0	1	6
1435	" " $3\frac{1}{4}$ " $2\frac{3}{4}$ "	...	...	...	0	2	0
1436	" " $4\frac{1}{4}$ " $3\frac{1}{4}$ "	...	...	...	0	3	0
1437	" " 5 " 4 "	...	...	...	0	5	0
1437*	" " 6 " 5 "	...	...	...	0	10	0

### BLACK PAPIER MACHE FRAMES.

These frames are made of papier maché with a black ground, having an ormolu or imitation gold chased opening, with dome, oval, or cushion-shaped mats and suspension ring, fig. 1438, and are well adapted for receiving Daguerreotype or collodion pictures.

1438	For holding pictures	$2\frac{1}{2}$	inches by 2 inches	...	...	...	£0	2	6
1439	"	$3\frac{1}{4}$	"	$2\frac{3}{4}$	"	...	0	3	0
1440	"	$4\frac{1}{4}$	"	$3\frac{1}{4}$	"	...	0	4	0
1441	"	5	"	4	"	...	0	4	6

### GUTTA PERCHA FRAMES. (*Two Patterns.*)

These gutta percha frames consist of an elegant designed edge in gutta percha (mounted, for strength, on wooden frames), the dark colour of the material affording a striking contrast to the predominant white of some pictures, fig. 1442.

1442	For holding passe partouts which contain pictures	$2\frac{1}{2}$	in. by 2 in.,	1s.
1443	For holding passe partouts which contain pictures	$3\frac{1}{4}$	in. by $2\frac{3}{4}$ in.	1s. 3d.
1444	For holding passe portouts which contain pictures	4 in.	by 3 in.,	1s. 6d.
1444a	For holding passe partouts which contain pictures	5 in.	by 4 in.,	2s.
1444b	For holding passe partouts which contain pictures	6 in.	by 5 in.,	2s. 6d.

### PASSE PARTOUTS.

The frames are made of cardboard, covered with glass, coloured or ornamented in a variety of patterns. Fig. 1445 is a representation of the article; the ground in one kind is dark brown, with an edge of dead gold around the opening, surrounded by a thin circlet of burnished gold; in another kind, the ground is white enamel, the opening of dead gold, surrounded by a rim of black, and around the whole a circlet of burnished gold; in a third kind the ground and opening are of dead gold, with an inner fillet and outer circlet of burnished gold.

Fig. 1445.



#### Passe Partouts, dark ground, with bronze mountings, and gold line.

1445	For holding pictures	$2\frac{1}{2}$	inches by 2 inches	...	per dozen	£0	4	0	
1446	"	$3\frac{1}{4}$	"	$2\frac{3}{4}$	"	...	0	4	6
1447	"	4	"	3	"	...	0	5	0
1448	"	5	"	4	"	...	0	8	0
1449	"	$6\frac{1}{2}$	"	$4\frac{3}{4}$	"	...	0	10	0
1450	"	$8\frac{1}{2}$	"	$6\frac{1}{2}$	"	...	0	18	0

#### Passe Partouts, white ground, with bronze mountings, and gold line.

1451	For holding pictures	$2\frac{1}{2}$	inches by 2 inches	...	per dozen	£0	4	6	
1452	"	$3\frac{1}{4}$	"	$2\frac{3}{4}$	"	...	0	5	6
1453	"	4	"	3	"	...	0	6	6
1454	"	5	"	4	"	...	0	10	6
1455	"	$6\frac{1}{2}$	"	$4\frac{3}{4}$	"	...	0	15	0
1456	"	$8\frac{1}{2}$	"	$6\frac{1}{2}$	"	...	1	6	0

#### Passe Partouts, dead gold ground, with burnished gold lines.

1457	For holding pictures	$2\frac{1}{2}$	inches by 2 inches	...	per dozen	£0	10	0	
1458	"	$3\frac{1}{4}$	"	$2\frac{3}{4}$	"	...	0	11	0
1459	"	4	"	3	"	...	0	12	0
1460	"	5	"	4	"	...	1	0	0
1461	"	$6\frac{1}{2}$	"	$4\frac{3}{4}$	"	...	1	7	0

## MOROCCO CASES.

**Morocco Leather Cases**, fig. 1464, lined with silk velvet, fitted with dome, oval, or cushion-shaped gilt mats, best white glass and hinged cover, for receiving and preserving Daguerreotype, Talbotype, and collodion pictures.

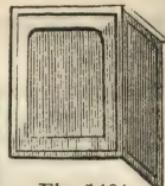


Fig. 1464.

1464	<b>Best Quality</b> , for plates $2\frac{1}{2}$ inches by 2 inches		per dozen £0 12 0
1465	" " $3\frac{1}{4}$ " $2\frac{3}{4}$ "	...	1 0 0
1466	" " 4 " 3 "	...	1 7 0
1467	" " $4\frac{1}{4}$ " $3\frac{1}{2}$ "	...	1 9 0
1468	" " 5 " 4 "	...	2 2 0
1469	" " $6\frac{1}{2}$ " $4\frac{3}{4}$ "	...	3 3 0
1470	<b>Second Quality</b> , for plates $2\frac{1}{2}$ inches by 2 inches, per dozen	0 10 6	
1471	" " $3\frac{1}{4}$ " $2\frac{3}{4}$ "	0 17 0	
1472	" " 4 " 3 "	1 3 0	
1473	" " $4\frac{1}{4}$ " $3\frac{1}{4}$ "	1 5 0	
1474	" " 5 " 4 "	1 18 0	

## MOROCCO FRAMES.

**Morocco Leather Frames**, fig. 1475, lined with silk velvet, fitted with dome, oval, or cushion-shaped gilt mats, and best white glass, for containing Daguerreotype, Talbotype, or collodion pictures.

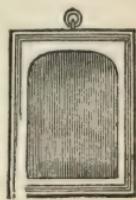


Fig. 1475.

1475	For plates $2\frac{1}{2}$ inches by 2 inches	...	per dozen £0 8 6
1476	" $3\frac{1}{4}$ " $2\frac{3}{4}$ "	...	0 13 0
1477	" 4 " 3 "	...	0 17 0
1478	" $4\frac{1}{4}$ " $3\frac{1}{4}$ "	...	1 0 0
1479	" 5 " 4 "	...	1 7 0
1480	" 6 " 5 "	...	2 2 0

## GILT MATS.

**Gilt Mats**, of superior quality, of oval, dome, or cushion shapes, for fitting into morocco cases or frames.

1486	For plates $2\frac{1}{2}$ inches by 2 inches	...	per dozen £0 2 0
1487	" $3\frac{1}{4}$ " $2\frac{3}{4}$ "	...	0 2 9
1488	" 4 " 3 "	...	0 4 0
1489	" $4\frac{1}{4}$ " $3\frac{1}{4}$ "	...	0 5 0
1490	" 5 " 4 "	...	0 7 0

**Glass Plates**, for fitting into morocco cases, suspension frames, &c.

1491	To fit cases, for plates $2\frac{1}{2}$ inches by 2 inches	...	per dozen £0 1 6
1492	" " $3\frac{1}{4}$ " $2\frac{3}{4}$ "	0 2 6	
1493	" " 4 " 3 "	0 3 0	
1494	" " $4\frac{1}{4}$ " $3\frac{1}{4}$ "	0 3 6	
1495	" " 5 " 4 "	0 4 9	
1496	" " $6\frac{1}{2}$ " $4\frac{3}{4}$ "	0 7 6	

# PURE CHEMICALS AND PREPARATIONS FOR PHOTOGRAPHIC PURPOSES.

Acid, acetic, glacial, pure, for the paper process, 1s. per ounce.	Iron, ammonio-citrate, 6d. per ounce.
," acetic, glacial, for the collodion process, 8d. per ounce.	," iodide, 1s. per bottle of $\frac{1}{4}$ dr.
," acetic, for ditto, 4d. per ounce.	," protosulphate, pure, 1d. per ounce.
," formic, 6d. per ounce.	Lamp black, prepared for buffing, 1s. per pkt.
," gallic, 1s. 6d. per ounce.	Lime, bromide, 2s. 6d. per bottle.
," pyrogallic, 10s. per oz., 1s. 6d. per dram.	," iodide, 2s. 6d. per bottle.
," sulphuric, pure, 2d. per ounce.	Magnesia, nitrate, 6d. per ounce.
Ammonia, pure, 2d. per ounce.	Mercury, pure distilled, 3d. per ounce,
," muricate, free from iron, 3d. per oz.	2s. 6d. per lb.
Ammonium, bromide, 5s. per ounce.	Naphtha, for lamp, 1s. 6d. per pint.
," iodide, variable, 2s. 6d. per oz.	Potassa, nitrate, powdered, 1s. per lb.
Barium, chloride, 2d. per ounce.	Potassium, bromide, pure, 2s. per ounce.
," iodide, variable, 4s. per ounce.	," cyanide, 4d. per ounce.
Baryta, nitrate, pure, 4d. per ounce.	," ferrocyanate, yellow prussiate,
Bromide of cadmium, 5s. per ounce.	3d. per ounce.
Bromide of lime, 2s. 6d. per bottle.	," fluoride, 2s. per ounce.
Bromide of iodine, 1s. per ounce.	," iodide, variable, 2s. per ounce.
Bromine, in 1-ounce bottles, 2s. 6d.	Rottenstone, prepared for polishing, 6d. per ounce.
," chloride, prepared for use, 6d. oz.	Rouge, 6d. per ounce.
," solution, 4d. per ounce.	Sensitive solution, 2s. 6d. per bottle.
Cadmium, bromide, 5s. per ounce.	Silver, ammonio-nitrate, 1s. per ounce.
," iodide, 4s. per ounce.	," chloride, 6s. per ounce.
Calcium, bromide, 5s. per ounce.	," iodide, 6s. per ounce.
Charcoal, animal, pure, 6d. per ounce.	," iodide, in iodide of potassium, 1s. 6d.
," prepared, for polishing plates, 1s. per packet.	," per ounce.
Chloro-bromide of lime, 3s. 6d. per bottle.	," nitrate, crystallized, 4s. per ounce.
Collodion, 9d. per ounce.	," nitrate, fused, 4s. 6d. per ounce.
," iodized, 9d. per ounce.	Silver, solution (Argento-cyanide of Potassium), for re-silvering Daguerreotype plates, 1s. per oz.; 10s. per pint.
Cotton wool, best, 3d. per ounce, 3s. per lb.	Soda, hyposulphite, 10d. per lb., 1d. per oz.
Æther, sulphuric, rectified, 6d. per ounce.	Sodium, chloride, pure, 3d. per ounce.
Gold, chloride, in bottles, $\frac{1}{2}$ -dram, 3s.	," fluoride, 1s. per ounce.
," " $\frac{1}{2}$ -dram, 5s.	Solution for iodizing waxed paper, 5s. pint.
Gold, salt of, Sel d'or, 3s. 9d. per bottle.	Solution for rendering waxed paper sensitive, 9s. per pint.
," solution, for darkening positives, 6d. per ounce.	Sugar of milk, 3d. per ounce.
Honey, purified, 6d. per ounce.	Tripoli, prepared, for polishing, 6d. per oz.
Iodine, chloride, 5s. per ounce.	Varnish, chloroform, 1s. per oz.
," pure, re-sublimed, 2s. per ounce.	Water, distilled, pure, 6d. per gallon.
," tincture, 6d. per ounce.	White wax, 3s. per pound.

The foregoing prices are subject to variation.

**Horne & Co.'s Varnish**, for protecting collodion pictures from injury during printing, affording an extremely hard and transparent covering, which dries in a few seconds, and is very easily applied—price per ounce, with directions, 4d., or 4 ounces in bottle, 1s. 6d.

**Horne & Thorntwaite's Positive Collodion**.—This collodion, when iodized with the positive iodizing compound, yields positives on glass which possess the strongest contrasts of light and shade. The whites are of a pearly hue, without metallic lustre; the middle tints finely delineated; and the deep shades clear and transparent. Price 9d. per ounce; Iodizing Solution for ditto, 9d. per ounce.

**Horne & Thorntwaite's Negative Collodion**.—This collodion when iodized with the negative iodizing compound, is adapted for the production of negative pictures on glass; it possesses extreme toughness, yields deep-toned negatives, with well-developed middle tints, and is extremely sensitive and constant in its action. Price 9d. per ounce; Iodizing Solution for ditto, 9d. per ounce.

As collodion, when iodized, does not keep good for more than three weeks or a month, it is advisable to have the iodizing solution separate in those cases where the whole stock ordered would not be used in that time; when ~~separate~~, these compounds keep any length of time.

ESTIMATES OF SETS  
OF  
PHOTOGRAPHIC APPARATUS.

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FOR THE COLLODION PROCESS ONLY.

**1499 A complete set of Photographic Apparatus**, for taking portraits and views of any size up to 4 inches by 3 inches, with expanding camera, and double combination of achromatic lenses, mounted in brass, with rack and pinion adjustment, camera stand, and all the necessary apparatus and chemicals, £5 5s.

**CONTENTS:**—Expanding camera, with focusing glass in frame, and one exposing frame for plates, 4 inches by 3 inches; Double combination of achromatic lenses, mounted in brass, with rack and pinion adjustment; Mahogany tripod stand, with circular brass top for supporting the camera; Printing frame for producing positive impressions from negative proofs, with an arrangement so that the progress of the printing can be inspected without disturbing its position; Glass bath and dipper; One dozen glass plates and box; Graduated glass measure, showing half drams; Glass funnel; One dozen sheets of filtering paper; Box of scales and weights, from  $\frac{1}{2}$  ounce to  $\frac{1}{2}$  grain; One dozen sheets of albumenized paper, for printing positives, with directions for use; Two porcelain washing trays; Levelling stand; Glass stirring rod, and a supply of Iodized collodion; Nitrate of silver; Pyrogallic acid; Acetic acid; Negative protecting varnish; Hyposulphite of soda—The whole, except the camera stand, enclosed in a packing case.

**1500 A complete set of Photographic Apparatus**, for taking portraits and views, of any size up to 3 inches by 4 inches, with French polished mahogany camera and double combination of achromatic lenses of *our own make*, mounted in brass, with rack and pinion adjustment, camera stand, and all the necessary apparatus and chemicals, £7 7s.

**CONTENTS:**—This set is composed of apparatus similar to the set No. 1499, but the camera is of French polished mahogany, and the double combination of achromatic lenses is guaranteed, being our own make, and the apparatus is of superior character. The whole (except the camera stand) packed into a strong travelling case with lock and key.

**1501 A complete set of Photographic Apparatus**, for taking portraits and views of any size up to 5 inches by 4 inches, with expanding camera and double combination of achromatic lenses, mounted in brass, with rack and pinion adjustment, camera stand, and the necessary apparatus and chemicals, £10 10s.

**CONTENTS:**—Expanding camera, with focusing glass in frame; Exposing frame, and two plate frames, for plates 5 inches by 4 inches, and 4 inches by 3 inches; Double combination of achromatic lenses, mounted in brass, with rack and pinion adjustment; Tripod stand, for supporting the camera; Printing frame, of the best construction; One dozen glass plates and box for holding them; Graduated glass measure, showing half drams; One dozen sheets filtering paper; Glass stirring rod; Set of scales, with weights from  $\frac{1}{2}$  ounce to  $\frac{1}{2}$  grain; Two porcelain washing pans; Levelling stand; Glass bath and dipper; One dozen sheets albumenized paper, for printing positive impressions from negative proofs; Glass filtering funnel, and a supply of iodized collodion, nitrate of silver, pyrogallic acid, acetic acid, negative protecting varnish, hyposulphite of soda—The whole enclosed in a packing case.

SETS FOR COLLODION PROCESS (*continued*).

**1502 A complete set of Photographic Apparatus**, adapted for taking portraits or views up to 5 inches by 4 inches, with best French polished expanding camera and double combination of achromatic lenses *of our own make*, mounted in brass, with rack and pinion adjustment, camera stand, leather cases for camera and lens, and all the requisite apparatus and chemicals, £15 15s.

**CONTENTS:**—Of a similar character to No. 1501, but the camera is of the best manufacture, and constructed after the latest improvements. The double combination of achromatic lenses is *our own make*, having its chemical and visual rays perfectly coincident. The apparatus is of a superior quality, and the chemicals in larger quantities.

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## FOR THE COLLODION AND PAPER PROCESSES.

**1503 A complete set of Photographic Apparatus**, adapted for taking portraits by the collodion process, of any size up to 5 inches by 4 inches, and views by either the waxed paper and calotype process, up to 7 inches by 6 inches, with best make folding camera and leather knapsack for holding it, double combination of achromatic lenses for portraits and single lens for views, *of our own make*, mounted in brass, with rack and pinion adjustment, camera stand, and all the requisite apparatus and a supply of chemicals, positive and negative papers, &c., packed in a strong travelling case, £21.

**CONTENTS:**—A folding camera, of the best construction, with adjusting front, and one single back or exposing frame, for taking collodion pictures, 5 inches by 4 inches, and 4 inches by 3 inches, and one double back for paper, 7 inches by 6 inches; A double combination of achromatic lenses, *of our own make*, mounted in brass, with rack and pinion adjustment, and single lens for taking views; Leather knapsack for containing the camera; Camera stand, of the best construction; Buckle's brush; Set of scales and weights; Tripod levelling stand; Gutta percha bath, mounted on mahogany foot, with glass dipper; One dozen glasses of each size, 5 inches by 4 inches, and 4 inches by 3 inches, and boxes to hold them; Reversing frame, for printing positives from negative impressions; Two graduated glass measures; Glass rod; Preparing board, on which to pin salted paper whilst applying nitrate silver solution; Two porcelain washing trays; A good supply of negative, positive, albumenized, and filtering papers, and of the following chemicals, &c.: nitrate silver, iodide potassium, gallic acid, acetic acid, ammonia, negative varnish, cyanide potassium, iodized collodion, chloride of barium, hyposulphite of soda, pyrogallic acid, empty bottles for solutions, and packing-case to contain all the apparatus.

**1504 A complete set of Photographic Apparatus**, adapted for taking portraits by the collodion process, of any size up to 6 inches by 5 inches, and views by the calotype or waxed paper process, 9 inches by 7 inches, with best make folding camera, double and single backs, double combination of achromatic lenses *of our own make*, mounted in brass, with rack and pinion adjustment, the front lens capable of being used for views as described at page 92, camera stand, and all the requisite apparatus and chemicals, packed in a strong travelling case and leather knapsack to contain the camera and backs, £26.

**CONTENTS:**—Portable folding camera, of Spanish mahogany French polished, with two apertures, the anterior one for taking portraits, and the posterior one for views, with one double and one single back or exposing frame, focusing glass in frame. The front of this

FOR THE COLLODION AND PAPER PROCESSES (*continued*).

camera has a double adjustment to vary the proportion of the foreground and sky in a picture; a double combination set of achromatic lenses of *our own make*, mounted in brass, with rack and pinion adjustment; Leather knapsack, for holding the camera; Buckle's brush; Balance and set of weights; Two glass rods and preparing board; Reversing frame; Two porcelain washing trays; Two graduated glass measures; Glass funnel; Levelling stand; Gutta percha bath, on mahogany foot, and glass dipper; Gutta percha dish; One dozen glasses of each size, 5 inches by 4 inches, and 4 inches by 3 inches, and boxes to hold them; Tripod camera stand, and a good supply of positive, negative, albumenized, and filtering paper, and of the following chemicals: nitrate of silver, hypo-sulphite soda, distilled water, iodide potassium, gallic acid, pyrogallic acid, acetic acid, ammonia, cyanide of potassium, iodized collodion, iodide silver, protosulphate iron, negative varnish, and empty bottles for solutions—The apparatus and chemicals packed into a strong packing case.

1505 **A complete set of Photographic Apparatus**, adapted for taking portraits by the collodion process, of any size up to 8 inches by 6 inches, and views by the calotype or waxed paper process, 9 inches by 7 inches, with best make folding camera, double and single backs, a double combination of achromatic lenses, of full size for portraits, and a single achromatic lens for views, *both of our own make*, mounted in brass, with rack and pinion adjustment, best camera stand, all the requisite apparatus, positive and negative paper, and chemicals, packed in a strong travelling case and leather knapsack to contain the camera and backs, £36.

**CONTENTS:**—A folding camera of the best construction, with focusing glass in frame; One single back and frames for collodion plates, 8 inches by 6 inches, 6 inches by 5 inches, and 5 inches by 4 inches, and one double back for views of paper, 9 inches by 7 inches; a full size double combination of achromatic lenses for portraits, and single achromatic lens for views, *both of our own make*, mounted in brass, with rack and pinion adjustment, Leather cases, for containing the camera; Buckle's brush; Set of scales and weights; Two glass rods; Reversing frame, for printing positive pictures from negative impressions; Two porcelain washing trays; Preparing board, on which to pin salted paper, to apply nitrate silver solution; Two graduated glass measures; Glass funnel; Tripod levelling stand; Gutta percha bath, mounted on mahogany stand, and glass dipper; One dozen each size glass plates, 8 inches by 6 inches, 6 inches by 5 inches, and 5 inches by 4 inches, and boxes to contain them; One gutta percha washing tray; Folding camera stand; and a full supply of negative, positive, albumenized, and filtering papers, and of the following chemicals: nitrate silver, iodide potassium, gallic acid, pyrogallic acid, glacial acetic acid, negative varnish, cyanide of potassium, ammonia, iodized collodion, muriate of ammonia, protosulphate iron, iodide silver, hyposulphite soda, &c.—The whole of the apparatus and chemicals packed in a strong packing case.

## FOR THE PAPER PROCESS ONLY.

1506 **A complete set of Photographic Apparatus**, for taking pictures on paper by the calotype or waxed paper process, of any size up to 5 inches by 4 inches, and containing all the necessary apparatus and chemicals, £5 5s.

**CONTENTS:**—A mahogany camera, French polished; Focusing glass in frame, and exposing frame; Achromatic lens, mounted in brass, with rack and pinion adjustment; Porcelain washing tray; Set of scales and weights; Reversing frame, for producing positive pictures from negative impressions; Graduated glass measure; Two photographic brushes; Tripod stand, for supporting the camera; Glass funnel; Preparing board; Glass rod; A supply of

## SETS FOR THE PAPER PROCESS ONLY (*continued*).

negative, albumenized, filtering, and waxed paper; and the following chemicals: nitrate silver, acetic acid, iodide silver, gallic acid, hyposulphite soda, ammonia-nitrate of silver, chloride of barium, and bottles for solutions—The whole enclosed in a strong packing box.

**1507 A complete set of Photographic Apparatus**, for taking pictures on paper by the calotype and waxed paper process, of any size up to 7 inches by 6 inches, and containing all the necessary apparatus and materials, £10 10s.

Contents same as No. 1506, but with camera of more perfect construction and of larger size, the lens of larger diameter, and apparatus and chemicals of a more extensive character.

**1508 A complete set of Photographic Apparatus**, for taking pictures on paper of any size up to 9 inches by 7 inches, and containing all the requisite apparatus and materials, £17 17s.

**CONTENTS** :—A portable folding camera of Spanish mahogany; One double exposing frame or back; Focusing glass in frame; Achromatic lens, in handsome brass mounting, with rack and pinion adjustment; Leather knapsack, for containing the camera; Leather case, for the lens; Best portable folding camera stand; Buckle's brush; Balance and a set of weights; Preparing board and glass rod; Reversing frame of the best make; Two porcelain washing trays; and a good supply of positive, negative, filtering, albumenized, and waxed paper, and of the following chemicals: nitrate silver, iodide potassium, gallic acid, acetic acid, ammonia, iodide silver, hyposulphite soda, distilled water, chloride barium, empty bottles for solutions, &c.—The whole apparatus and chemicals packed into a strong box for travelling.

## SETS OF DAGUERREOTYPE APPARATUS.

The silvered plates on which the pictures are obtained are not included in the following prices. The quantity of each size required must be ordered separately.

**1509 A complete set of Daguerreotype Apparatus**, of the best construction, for obtaining pictures on plates up to 4½ inches by 3½ inches, with the necessary chemicals and polishing substances—the whole packed in two neat coloured cases, with lock, key, and handles, £10 10s.

**1510 Set of Daguerreotype Apparatus**, for obtaining portraits, &c., on plates up to 6½ inches by 4¾ inches, and all the necessary apparatus, chemicals, and polishing materials—the whole packed in two coloured cases, with lock, key, and handles, £25.

**1511 Ditto ditto**, for taking Daguerreotype pictures up to 8½ inches by 6½ inches, complete with all the best apparatus, and a full supply of chemicals, packed in two cases, £42.

**1512 Estimate for a complete Daguerreotype Apparatus**, suitable for the professional photographist, consisting of a large-sized camera and compound lens for large views, portraits, and groups, small size camera with large aperture and short focus, combination of lenses for taking portraits up to 4 inches by 3 inches in dull weather, all the requisite apparatus, with a full supply of all the necessary chemicals polishing materials, &c., complete, £110.